Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Bell:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**ADVANCED Math 7**

**STUDY GUIDE: Unit 1 Test—Part 1**

1. What is in standard form?

|  |  |  |
| --- | --- | --- |
| ***Power of ten*** | ***Fraction*** | ***Decimal*** |
|  | ***2a.)*** | ***2b.)*** |
| ***3a.)*** | ***3b.)*** | ***0.001*** |
| ***4a.)*** | **100,000** | ***4b.)*** |

Complete the table*:*

1. Which of the following is correctly written in scientific notation?
2. African male elephants can grow to be 13,000 pounds. Write this in scientific notation.
3. Express the following in scientific notation: 0.00602
4. Express the following in standard notation:

|  |  |  |  |
| --- | --- | --- | --- |
| ***Fraction*** | ***Decimal*** | ***Scientific notation*** | ***Percent*** |
|  | 9a.) | 9b.) | 9c.) |
| 10a.) | 10b.) |  | 10c.) |
| 11.a) | 11b.) | 11c.) | **90%** |

**Complete the table:**

12. Order the following rational numbers from least to greatest:

**68% , , 6.6 x 10 2 , 0.066**

**\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_**

**Least Greatest**

13**.** Order the following rational numbers from greatest to least:

**, 55.5 % , 5.8 x 10 -1 , 0.05**

**\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_**

**Greatest Least**

**SOL 7.1d The student will determine square roots.**

14. The number 225 is a perfect square?

a. YES

b. NO

15. The number 55 is a perfect square?

a. YES

b. NO

16. The square root of 17 lies between which two whole numbers?

\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_

17. The square root of 60 lies between which two whole numbers?

\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_

18. When plotted on a number line, which value is closest to the absolute value of 2?



19. Circle all the values in the table equal to 5:

|  |  |  |
| --- | --- | --- |
| -ǀ -5 ǀ | ǀ ǀ | -5 |
| 5 | -ǀ -8 ǀ | ǀ 5 ǀ |

20. Circle all the true statements in the table:

|  |  |  |
| --- | --- | --- |
| - |  |  |
|  |  |  |

Classify each real number below by placing a checkmark in the box.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Irrational** | **Rational** | **Integer** | **Whole** | **Natural** |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

21.

**22.**

**23.**

**24.**

**25.**